

Amendments to the Specification:

Please replace the title as follows:

~~MAGNETORESISTIVE EFFECTIVE ELEMENT, THIN FILM MAGNETIC HEAD,
MAGNETIC HEAD DEVICE AND MAGNETIC RECORDING/REPRODUCING
DEVICE~~
ELEMENT WITH HIGH OUTPUT STABILITY AND REDUCED READ
BLEEDING AT TRACK EDGES

Please replace paragraph [0034] with the following rewritten paragraph:

[0034] The MR film 30 is disposed in between the first shielding layer 28 and the second shielding layer 41. In this embodiment, the MR film 30 is constructed of a SV film with a thickness of Gsv which is composed of a free layer 301, a non-magnetic layer 302 adjacent to the free layer 301, a pinned layer 303 adjacent to the non-magnetic layer 302 and an antiferromagnetic ~~layer 404~~ layer 304 adjacent to the pinned layer 303. The magnetization direction of the pinned layer 303 is fixed through the exchange interaction with the antiferromagnetic layer 304.

Please replace paragraph [0036] with the following rewritten paragraph:

[0036] The ~~first gas~~ first gap film 305 is an insulating film with a thickness of G1, and is formed on the MR film 30 with commensurate to the surface configuration. In this embodiment, the MR film 30 and the first gap film 305 are flared downward, so that the cross sections of the MR film 30 and the first gap film 305 are narrowed upward and widened downward. As a result, the MR film 30 and the first gap film 305 are formed in trapezoid. The first gap film 305 can be made of metal oxide, and preferably AlOx, AlN, DLC, CN, SiO2, TaOx, FeOx, NiOx, CoOx or combination thereof.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] The second gap layer 461 is located between the MR film 30; the magnetic domain controlling layers 21, 22 and the first shielding layer 28, and the second gap layer 462

is located between the first gap layer 305; the electrode layer 25, 26 and the second shielding layer 41. The second gap layers 461 and 462 are formed in respective thicknesses of ~~G221~~ of G21 and G22 of oxide insulating material such as aluminum oxide or silicon oxide. The second gap layer 461 is formed on the flattened surface of the first shielding film 28. The MR film 30 and the magnetic domain controlling layers 21; 22 are also formed on the flattened surface of the second gap layer 461. The thickness G22 of the second gap layer 462 is preferably set to 4nm or over.

Please replace paragraph [0042] with the following rewritten paragraph:

[0042] This embodiment is characterized by the first gap layer 305, which is formed only on the MR film 30 with commensurate to the surface configuration of the MR film 30 and has the thickness G1. In this case, the total thickness $G1 + G_{sv}$ of the MR film 30 and the first gap layer 305 can be set larger than the total thickness $H_d + L_d$ of the magnetic domain controlling layers 21; 22 and the electrode layers 25; 26. Therefore, the center shielding gap length ~~G_s defined~~ G_s defined at the center position of the illustrated MR element where the MR film 30 and the first gap layer 305 are disposed can be set larger than the side shielding length G_L defined at the side position of the illustrated MR element where the magnetic domain controlling layers 21; 22 and the electrode layers 25; 26 are disposed. In this case, both sides of the second shielding layer 41 are depressed at both sides of the MR film 30 in the front view, respectively, so that the effective track width can be prevented from being magnetically widened. In comparison with Patent publication No. 1, since the magnetic field from the edges of the soft magnetic layer affects on the MR element, a side lobe defect can not be generated therein.

Please replace paragraph [0045] with the following rewritten paragraph:

[0045] In the samples S11-S16, the thickness L_d of the electrode layers 25 and 26 were thinned from 30nm (sample S11) to 5nm (sample S16). As apparent from Table 1, the

difference between the center shielding gap ~~Gs and GS~~ and the side shielding gap GL is decreased as the thickness Ld of the electrode layers 25 and 26 are thinned. Particularly, in the sample S16 where the thickness Ld of the electrode layers 25 and 26 was set to 5nm, the relation of ~~Gs>GL~~ GS>GL is satisfied and thus, the second shielding layer 41 is depressed downward. In the sample S16, the effective track width (MRWu) can be narrowed at the maximum. Since the resistance of the conventional MR element is beyond 100W, however, the sample S16 can not be practically employed. In view of practical use, the track width of 159nm in the sample S15 where the thickness Ld of the electrode layers 25 and 26 were set to 10nm is the narrowest.

Please replace paragraph [0049] with the following rewritten paragraph:

[0049] In the samples S21-S26, the thickness Ld of the electrode layers 25 and 26 were thinned from 30nm (sample S11) to 5nm (sample S16). As apparent from Table 2, the difference between the center shielding gap ~~Gs and GS~~ and the side shielding gap GL is decreased as the thickness Ld of the electrode layers 25 and 26 are thinned. Particularly, in the samples S23-S26 where the thickness Ld of the electrode layers 25 and 26 were set within 20-5nm, the relation of ~~Gs>GL~~ GS>GL is satisfied and thus, the second shielding layer 41 is depressed downward. In the sample S26 where the thickness Ld of the electrode layers 25 and 26 was set to 5nm, the effective track width (MRWu) can be narrowed 142nm, but can not be practically employed because the resistance of the MR element is beyond 100W. In view of practical use, the track width of 148nm in the sample S26 where the thickness Ld of the electrode layers 25 and 26 was set to 10nm is the narrowest. In this way, the minimum effective track width (148nm) of the MR element illustrated in Fig. 1 is narrower than the minimum effective track width (159nm) of the conventional MR element by 11nm. Therefore, it is turned out that the effective track width of the MR element illustrated in Fig. 1 is improved largely.

Please replace paragraph [0083] with the following rewritten paragraph:

[0083] The recording element 4 includes a bottom magnetic layer 41 functioning as a second shielding film, a top magnetic layer 45, a recording gap layer 42, and thin film coils 43 and 47. The bottom magnetic layer 41 is magnetically connected to the top magnetic layer 45. The recording gap layer 42 is disposed between the magnetic pole portions of the bottom magnetic layer 41 and the top magnetic layer 45. The thin film coils 43 and 47 are embedded in ~~an insulating layer~~ insulating layers 44 and 48 formed in the inner gap between the bottom magnetic layer 41 and the top magnetic layer 45.

Please replace paragraph [0087] with the following rewritten paragraph:

[0087] On the lower surface of the supporter 61 is provided a ~~hemispheric~~ hemispheric loading convex portion 625, which conducts a load to the tongue shaped member 624 from the free edge of the supporter 61.